

CLAIMS

1. A process for manufacturing a detergent bar comprising a first distinct zone comprising a first component and at least a second distinct zone comprising a second component, said process comprising an injection step in which said first and second components are injected into a mould via nozzle means having a first orifice through which said first component is injected and at least a second orifice through which the second component is injected, and a solidification step in which the first and second components solidify in the mould to form the said detergent bar.
2. A process according to claim 1 wherein at least one component of the detergent bar comprises at least 5% by weight of that component of soap, synthetic detergent active or a mixture thereof.
3. A process according to claim 1, wherein the nozzle means is inserted inside the mould and is withdrawn during injection.
4. A process according to claim 1, wherein relative rotary motion is effected between the nozzle means and mould during at least part of the injection step.
5. A process according to claim 4, wherein the rotary motion is continuous rotation and/or oscillatory, optionally with one or more interruptions to said rotary motion.

6. A process according to claim 1, wherein the injection rate of the first and/or second component is varied during the injection step.
- 5 7. A process according to claim 1, in which said first and second components differ from one another in their colour.
8. A process according to claim 1, in which said first and second zones differ from one another in their chemical composition.

Sub 9. A process according to any preceding claim 1, wherein said first and second components differ in their rheological condition as they are injected into the mould cavities.

10. A process according to claim 1, wherein a single feedstock is split into separate streams and at least one such stream is post-dosed with an ingredient to cause it to differ from the other component, and/or is caused to differ in its rheological condition..

20 11. A process according to claim 8, in which one of said first and second zones comprises detergent and the other comprises a benefit agent.

25 12. A process according to claim 1, wherein at least one of the said first and second components has a viscosity of at least 1 Pa.s immediately upon exiting the respective orifice of the nozzle means and is delivered to the nozzle by application of pressure.

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13. An apparatus for manufacturing a detergent bar comprising a first distinct zone comprising a first component and at least a second distinct zone comprising a second component, said apparatus comprising a mould and nozzle means for injecting said first and second components into the mould, the nozzle means having a first orifice through which said first component is injected and a second orifice through which the second component is injected, the nozzle means being inserted inside the mould at the start of the injection process and being withdrawn during injection, whereby the injected first and second components solidify in the mould to form the said detergent bar.

14. An apparatus according to claim 13 wherein the nozzle means comprises a passage to allow the mould to vent.